

REMARKS

On page 2 of the final Action, claims 1 and 3-9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hiramatsu et al. in view of Fujii et al.

In view of the rejection, claim 6 has been canceled, and the subject matter of canceled claim 6 has been incorporated into claim 1. Since claim 1 now amended is a combination of claims 1 and 6, the amendment does not introduce new issue.

In this respect, it is respectfully requested that the patentability of claim 1 now amended is only examined without other combination, i.e. combination of claim 1 and other dependent claims. Claim 1 now amended is patentable over the cited references.

On page 3 of the final Action, it was held that "Hiramatsu et al does not disclose an energy-absorption pin member in the stopper or locking member or a cutter for cutting it."

As stated in the final Action, Hiramatsu et al. does not disclose an energy-absorption pin member as disclosed in claim 1.

On page 3 of the final Action, it was further held that "Fujii et al teaches providing a seat belt retractor with an energy-absorption pin member 20, 21, 31, 32, 33 for absorbing energy by shear deformation upon rotation of locking member 14 relative to spool 4."

In Fujii et al., a spool 4 is disposed over a locking base 14. In an embodiment as shown in Figs. 1(a) and 1(b), the spool 4 and the locking base 14 are connected by share pins 20, 21. In an embodiment as shown in Fig. 8, the spool 4 and the locking bas 4 are arranged to face each other, and cut portions 31-33 are situated adjacent to cutting blades 40-42.

In both embodiments shown in Figs. 1 and 8, the share pins

20, 21 and cut portions 31-33 are arranged parallel to the center shaft of the spool 4. Therefore, when the spool 4 is rotated or withdrawn relative to the locking base 4, the spool 4 is angularly rotated. If the spool 4 is rotated for the diameter of the share pins 20, 21, the share pins 20, 21 and cut portions 31-33 are easily cut. The share pins and cut portions are immediately cut by the rotation of the spool.

In claim 1 now amended, the pin member is configured for shear-deformation proximate a periphery of the one of the stopper and locking member in which the pin member is disposed, when the stopper moves in the axial direction along the shaft of the locking member (emphasis added).

Namely, in the invention, the stopper is screwed on the shaft of the locking member to move along the axial direction, and when the stopper moves in the axial direction along the shaft of the locking member, the pin member is cut because the pin member is located at the periphery of the stopper or locking member. Since the stopper slowly moves along the shaft as the spool is withdrawn, the pin member can be cut gradually along the withdrawal of the seat belt. In Fujii et al., the share pins 20, 21 and the cut portions 31-33 are disposed angularly along the shaft, the share pins and cut portions are quickly cut upon withdrawal of the spool.

In claim 1, further, it is clearly defined that the pin member is arranged to project essentially radially out of the one of the stopper and the locking member in which it is disposed. The arrangement and orientation of the pin member are clearly defined. In Fujii et all., the share pins and cut portions are arranged parallel to the shaft. The arrangement of the pin member of the invention is entirely different from that of Fujii et al.

In this respect, it was held in the final Action that "With regard to claim 6, it would have been obvious to make the pin member project essentially radially out of the stopper and locking member due to their concentric arrangement."

However, in Fujii et al., the share pins 20, 21 and the cut portions 31-33 are arranged parallel to the shaft of the spool and are connected between the spool 4 and the locking base 14. It is not suggested to provide the share pin between the stopper and the locking member and to project radially out of the stopper and the locking member.

Hiramatsu et al. has the spool 4 and the locking base 14, as in Fujii et al. Therefore, when Fujii et al. is referred to, the share pins 20, 21 and the cut portions 31-33 of Fujii et al. may be provided between the spool 4 and the locking base 14 of Hiramatsu et al. However, such a combination does not constitute claim 1 of the invention.

Fujii et al. does NOT suggest the arrangement of the share pins and cut portions between the stopper and the locking member.

The Examiner's opinion that it would have been obvious to make the pin member project essentially radially out of the stopper and locking member due to their concentric arrangement is derived from the disclosure of the invention. It is not obvious to form the pin member between the stopper and the locking member, especially by changing the arrangement and the direction of the pin member. Since the great advantage is obtained, i.e. gradually cutting the share pin, the arrangement of claim 1 is not a mere rearrangement of the pin member, and claim 1 is patentable over the cited references.

Claim 1 now amended is patentable over the cited references.

Reconsideration and allowance are earnestly solicited.

Respectfully submitted

by Manabu Kanesaka
Manabu Kanesaka
Reg. No. 31467
Agent for Applicants

1700 Diagonal Road, Suite 300
Alexandria, Virginia 22314
(703) 519-9785